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MCH Innovations Database Practice Summary & Implementation Guidance

Recommendation Tools to Align Fatality Review Programs to Improve Maternal and Infant Health Outcomes

Evaluate the effectiveness of Michigan recommendation tools to identify themes and themes for action generated by local Fetal Infant Mortality Review (FIMR) teams and align them with Michigan Maternal Mortality Surveillance program (MMMS) recommendations.



Location

Michigan



Topic Area

Infant Mortality



Setting

Community



Population Focus

Perinatal/Infant Health



NPM

Infant Mortality



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Section 1: Practice Summary

PRACTICE DESCRIPTION

Fetal Infant Mortality Review (FIMR) is defined by the [National Center for Fatality Review and Prevention](#) as “a community-based, action-oriented process to review fetal and infant deaths and make recommendations to spark systemic changes to prevent future similar deaths. All FIMR teams operate at the local level (usually the county) to examine medical, non-medical, and systems-related factors and circumstances contributing to fetal and infant deaths.” Fetal Infant Mortality Review (FIMR) uses a two-tiered process to implement a continuous quality improvement process with a multi-discipline case review team (CRT) and community action team (CAT). The CRT reviews the case summaries from de-identified infant and fetal deaths abstracted from available records and from a maternal/family interview. Based on these reviews, the team makes recommendations for system change. The CAT implements the recommendations from the CRT. Fetal Infant Mortality Review (FIMR) teams are made up of a variety of local professionals and lay people. For example, teams may include professionals and lay people from: health care, child welfare, home visiting, mental health, community and faith-based organizations, Emergency Medical Services, academic institutions, activists, bereavement specialists, family planning, law enforcement, among others. Fetal Infant Mortality Review (FIMR) is an evidence-based process identifying and analyzing factors contributing to fetal and infant deaths. Findings from the FIMR process are used to assess, plan, improve, and monitor service systems and community resources supporting maternal and infant health. The FIMR process complements population-based data while providing unique information not readily available from broad estimates and statistics.

The Michigan FIMR network is made up of the following communities: Berrien County, Calhoun County, City of Detroit, Genesee County, Ingham County, Inter-Tribal Council of Michigan, Jackson County, Kalamazoo County, Kent County, Macomb County, Muskegon County, Oakland County and Saginaw County. Funding is provided by the Michigan Department of Health and Human Services to support FIMR case abstractions and maternal/family interviews.

Guidance documents are used by local FIMR teams to write recommendations however, there are no standardized tools/processes for writing recommendations. As a result, there is large variability in local FIMR team recommendations, making it challenging to analyze recommendations from all Michigan FIMR teams as a group. Formative research for this project revealed that Michigan FIMR network members desired an improved process to write, collect, sort, and elevate recommendations to local and state MCH leaders. As a result, “lean” or lean process improvement workshops were held with local FIMR network members and the following resources/tools were developed: 1) FIMR Health Equity Toolkit; 2) FIMR Interview Guide; 3) FIMR Case Review Team Recommendation Form; 4) Log of Local FIMR Recommendations; 5) Local and State Data Sources for FIMR Case Abstraction; and 6) FIMR Community Action Team Roles & Responsibilities Guidance document.

Between January and August 2020, the FIMR network members piloted the newly developed tools (FIMR Case Review Team Recommendation form, Log of Local FIMR recommendations) with their local teams. This allowed for the analysis of recommendations across the Michigan FIMR network and improved opportunities to implement actions based on findings locally and statewide. Additionally, the FIMR Case Review Team Recommendation form and the Log of Local FIMR recommendations provided a basis for the alignment with the Michigan Maternal Mortality Surveillance (MMMS) recommendations to elevate themes and themes for action to improve the outcomes for mothers, infants, and families; which is one of the state actions listed in the [2020-2023 Michigan Mother Infant Health & Equity Improvement Plan](#).



To guide this work, three logic models were developed with input from the Michigan FIMR network. The logic models served as an initial step for developing an evaluation plan, which included the development of a FIMR evaluation survey to get insight from the local FIMRs on the FIMR process and utilization of the tools mentioned above. To assist with developing the logic models and the FIMR evaluation survey, State FIMR staff participated in AMCHPs Cutting-Edge Practice Technical Assistance opportunities. For the MMMS/FIMR aligned recommendation work, the newly developed tools were used to develop a methodology for analyzing and aligning recommendations from the two programs. The aligned methodology was piloted to evaluate the process and methodology.

CORE COMPONENTS & PRACTICE ACTIVITIES

The goal of the initiative was to 1) create tools and resources for local FIMRs to develop more actionable and equitable recommendations; 2) standardize the format of local recommendations; 3) increase the recognition of local recommendations locally and through the State; and 4) create an FIMR and MMMS alignment methodology to identify shared themes and themes for action. The core components of this initiative included development of FIMR logic models, evaluation plan and survey, and implementation the FIMR and MMMS recommendations alignment methodology.

Core Components & Practice Activities		
Core Component	Activities	Operational Details
Introduction & Feedback Gathered	Introduction to logic models was provided to FIMR Network and survey administered for feedback	Three Michigan FIMR logic models were developed based on feedback and input from the Michigan FIMR network members. An overview of logic models was presented at a FIMR Network Quarterly meeting in September 2021. To get feedback on outcomes and activities, a survey was developed and sent to Network members.
Development of Logic Models	Feedback from FIMR network members were used to develop	From feedback obtained through the survey, draft logic models were developed.
Presentation and Approval of Logic Models	Final feedback and MCH leadership approval received	The logic models were finalized and approved in March 2022.
Development of FIMR Evaluation Survey	An evaluation survey was developed based on logic models	In the spring of 2022, an evaluation survey was developed based on the three Michigan FIMR logic models.



Feedback on FIMR Evaluation Survey	Feedback from network members were received	We asked a FIMR network member to review the survey to see if the questions made sense and if the flow of the survey made sense.
Pilot FIMR Evaluation Survey	Evaluation survey was administered as a pilot to FIMR network members	Information about the FIMR evaluation survey was shared during the Michigan FIMR call in August 2022. The survey was sent to local FIMR coordinators to take mid-August 2022 to pilot.
1:1 Meetings Held	1:1 meetings were held with each local FIMR Coordinator to gather additional feedback	End of August 2022 thru mid-September 2022, one on one meetings were held with local FIMR network members and the Michigan FIMR Coordinator to hear what supports would be helpful in the next fiscal year along with hearing more about responses in the FIMR evaluation survey.
Pilot Aligned FIMR & MMMS Recommendation Methodology	The aligned recommendation tool, developed from the FIMR CRT recommendation form, and analysis methodology were piloted from April – June 2021	The MMMS Coordinator, FIMR Coordinator, and Preventable Mortality Epidemiologist went through a “lean” process improvement or LPI in November 2020 to develop a process and methodology to analyze MMMS and FIMR recommendations to identify themes and themes for action. Once the methodology/process was developed, the aligned tool and log were developed, and the process was piloted from April 2021 to June 2021.
Implement Aligned FIMR & MMMS Recommendation Methodology	In October 2021, the aligned FIMR & MMMS analysis methodology was fully implemented	After the pilot period, and adjustments were made, the process was fully implemented starting in October 2021.

HEALTH EQUITY

In the FIMR Case Review Team Recommendation form, local FIMR coordinators/local case review teams identify racism, systemic racism, implicit bias when working through the FIMR Case Review Team Recommendation form while reviewing cases. Additionally, the recommendation form includes a section on social determinants. Fetal Infant Mortality Review (FIMR) teams identify inequities in case reviews along with developing and elevating equitable recommendations. Moreover, a Michigan FIMR Health Equity Toolkit was developed and provides



health equity resources for FIMR teams. Health equity training and resources are also shared with the Michigan FIMR Network at least annually.

In the FIMR logic models, there are two outcomes addressing health equity: 1) Systemic changes made to reduce disparities and 2) Family voices are elevated to inform stakeholders to improve MCH systems and resources. To help reach these outcomes, the FIMRs continue to develop recommendations and send them to the State FIMR Coordinator to elevate to maternal child health state leaders. Additionally, the Michigan FIMR Strategic Storytelling Team is working to develop a storytelling toolkit with resources, things to consider, and lessons learned for incorporating storytelling into the FIMR process to elevate family voices. Through elevating family voices through storytelling will help to provide context of why disparities exist, the impacts of racism and discrimination on families, and the inequities experienced by families and communities. In the FIMR evaluation survey, questions have been developed to gather information regarding health equity and the above two outcomes from the FIMR logic models.

Lastly, the aligned MMMS/FIMR Recommendation tool was modified from the FIMR CRT Recommendation form to help identify, racism (structural, interpersonal, etc.), implicit bias, social determinants of health and inequities to elevate equitable recommendations. By aligning MMMS and FIMR recommendations there is an opportunity to speak with a stronger voice and identify changes needed to improve Michigan's maternal child health system.

EVIDENCE OF EFFECTIVENESS

The first step for the evaluation plan, was to develop the FIMR logic models using an iterative process with local FIMR teams. After the logic models were finalized, FIMR member feedback guided the FIMR evaluation survey development. The evaluation survey was distributed to FIMR members as a pilot in August 2022. One-on-one meetings were held between the end of August and September 2022 with each local FIMR coordinator. Network members shared ideas related to how the Michigan FIMR Coordinator could enhance support and technical assistance. Future activities will include distribution of an annual FIMR survey and continuation of one-on-one annual meetings. In addition, FIMR Network monthly calls and quarterly meetings will be held to provide a space for Network members to share successes, challenges, and lessons learned.

The future outcomes that will be measured include the quality of collaborations between FIMR and the community/stakeholders, implementation of recommendations, how local FIMR staff feel FIMR has contributed to infant mortality reduction efforts, the extent that changes in the community can be attributed to the FIMR program, and if they feel the community recognizes FIMR as a legitimate prevention initiative.

Initial success resulting from implementation of the pilot survey and one-on-one meetings include:

- Local FIMR staff adoption and use of the FIMR Case Review Team Recommendation Form and the log of local recommendations;
- Increased Community Action Team engagement by FIMR teams to present recommendations; and
- Expressed satisfaction with the survey as a means to critically think about challenges and opportunities.



Section 2: Implementation Guidance

COLLABORATORS AND PARTNERS

The key collaborators and partners in this initiative are the members of the Michigan FIMR Network which consists of local FIMR coordinators, abstractors, and interviewers from thirteen FIMR sites across Michigan who are preparing, reviewing cases, and developing local recommendations. Additionally, the MMMS staff were essential to this initiative with developing the aligned recommendation methodology.

Practice Collaborators and Partners

Partner/Collaborator	How are they involved in decision-making throughout practice processes?	How are you partnering with this group?	Does this stakeholder have lived experience/come from a community impacted by the practice?
Michigan FIMR Network Members	Fetal Infant Mortality Review (FIMR) Network members provided input on the logic models, feedback on the draft logic models, and piloted the FIMR evaluation survey and met with the Michigan FIMR Coordinator for one-on-one meeting.	Fetal Infant Mortality Review (FIMR) Network members actively participate on monthly Michigan FIMR Network monthly calls and Michigan FIMR Network quarterly meetings. These times are a time to share successes, challenges, and pose questions to other network members. These spaces were used to present, provide updates, and get feedback on this initiative.	Yes, the local FIMR staff come from communities that experience high infant mortality rates and/or the greatest disparities in infant mortality rates.
MMMS Staff	The MMMS Program Coordinator, Michigan FIMR Coordinator, and	The MMMS Program Coordinator and	No, however, recommendations are developed by case review



Preventable Mortality Epidemiologist created and reviewed the aligned recommendations qualitative analysis process, methodology and the tools used.

Preventable Mortality Epidemiologist frequently met with the Michigan FIMR Coordinator to discuss and review the process, methodology, and tools.

teams who may come from communities that are impacted by this initiative.

REPLICATION

The following list of tools and resources may be used to replicate this work:

- FIMR Case Review Team Recommendation form
- Log of local FIMR recommendations
- Logic models
- Evaluation survey
- MMMS/FIMR Aligned Recommendation Tool

INTERNAL CAPACITY

1. **State FIMR Coordinator:** One position; skilled in project coordination, FIMR process, FIMR methodology, and FIMR implementation; varied FTE
2. **State Infant Health Manager:** One position; skilled in management, leadership, and project management; varied FTE
3. **Local FIMR Coordinators:** Thirteen local FIMR Coordinators; skilled in FIMR process (case abstraction, maternal/family interviews, meeting facilitation), methodology, and implementation; FTE varied by local health departments.
4. **MMMS Staff:** MMMS Coordinator and Preventable Mortality Epidemiologist; skilled in project coordination, MMMS methodology, MMMS implementation, and qualitative and quantitative analysis methods; varied FTE
5. **Local FIMR Case Review Teams (CRTs):** Thirteen local FIMR CRTs; multidisciplinary teams (maternal and infant health medical professionals, public health, law enforcement, bereavement specialists, etc.) – representation based on needs of the community; skilled in maternal and infant health, social, and environmental factors; CRTs meet monthly to quarterly based on the number of cases ready for review. Each CRT meeting lasts two to three hours.



PRACTICE TIMELINE

Phase: Planning/Pre-Implementation		
Activity Description	Time Needed	Responsible Party
Introduction to logic models was provided to the FIMR Network and a survey was administered for feedback on outcomes and activities to include in the logic models.	~ 1 month	Michigan FIMR Coordinator, Michigan Infant Health Unit Manager, and FIMR Network members.
Feedback from the FIMR Network members were used to develop three logic models.	~ 3 months	Michigan FIMR Coordinator and Michigan Infant Health Unit Manager
An evaluation survey was developed based on the three logic models.	~ 3 months	Michigan FIMR Coordinator and Michigan Infant Health Unit Manager
Feedback from FIMR Network members were received on the draft evaluation survey.	~ 1 month	Michigan FIMR Coordinator and Michigan FIMR Network member
The Michigan FIMR Coordinator, MMMS Coordinator, and Preventable Mortality Epidemiologist participated in a “lean” process improvement to develop a process and methodology to analyze MMMS and FIMR recommendations.	~ 1 month	Michigan FIMR Coordinator, MMMS Coordinator, and Preventable Mortality Epidemiologist.
The aligned recommendation tool, developed from the FIMR CRT recommendation form, and analysis were piloted	~ 2 months	Michigan FIMR Coordinator, Local FIMR Teams, MMMS Coordinator, and Preventable Mortality Epidemiologist



Phase: Implementation

Activity Description	Time Needed	Responsible Party
Final feedback and MCH leadership approval was received for the three logic models.	~ 2 months	Michigan FIMR Network members, Michigan FIMR Coordinator, and Michigan Infant Health Unit Manager
The evaluation survey was administered as a pilot to the FIMR Network members.	Survey opened ~ 2 weeks. Analysis of results ~ 1 week	Michigan FIMR Network members and Michigan FIMR Coordinator
1:1 meetings were held with each local FIMR Coordinator to gather additional feedback based on the FIMR evaluation survey.	~ 1 month	Michigan FIMR Coordinator and Local Michigan FIMR Coordinators
In October 2021, the aligned FIMR & MMMS analysis methodology was fully implemented.	Ongoing	Michigan FIMR Coordinator, Local FIMR teams, MMMS Coordinator, and Preventable Mortality Epidemiologist

Phase: Sustainability

Activity Description	Time Needed	Responsible Party
Annual review of FIMR logic models	~ 1 month	Michigan FIMR Coordinator and Michigan FIMR Infant Health Unit Manager
Annual FIMR evaluation survey administered and review of survey results	~ 1 month	Michigan FIMR Coordinator, Michigan FIMR Network members, and Michigan Infant Health Unit Manager
Annual 1:1 meetings with local FIMR Coordinators, Abstractors, and Interviewers	~ 1 month	Michigan FIMR Coordinator and Michigan FIMR Network members/teams (Coordinators, Abstractors, and Interviewers)



Annual analysis aligned
MMMS/FIMR Recommendations

1 year to collect
recommendations
~ 2 months to analyze results

Local Michigan FIMR teams, Michigan FIMR
Coordinator, MMMS Coordinator, and
Preventable Mortality Epidemiologist

PRACTICE COST

Budget			
Activity/Item	Brief Description	Quantity	Total
State FIMR Coordinator	Participated in internal and external meetings, assisted in logic model creation, assisted in survey creation, and project oversight.	1 FTE	In-kind
State Infant Health Unit Manager	Participated in internal and external meetings, assisted in logic model creation, assisted in survey creation, and project oversight	.1 FTE	In-kind
MMMS Staff (Epidemiology Unit)	Participated in LPI workshops to develop FIMR/MMMS recommendation aligned methodology, assisted in joint recommendation tool development, and project oversight.	2 staff	In-kind
Local FIMR Staff (Coordinators, Abstractors, and Interviewers)	Reviewed and provided feedback on logic models and survey questions. Participated	13 local FIMR sites	In-kind



	in 1:1 meetings and monthly network calls.		
Local FIMR Functions			
Local FIMR Case Abstraction	Local FIMRs are reimbursed for completed case abstractions (\$270/completed case)	~ 200 cases/year	\$54,000
Local FIMR Maternal/Family Interviews	Local FIMRs are reimbursed for completed interviews (\$125/completed interview)	~ 150 interviews/year	\$18,750
Total Amount:			\$72,750

LESSONS LEARNED

The lessons learned from this project include the following:

- It is important to gather continual feedback from those involved with the initiative.
- It is important to be flexible with how feedback is collected. For example, surveys were a better way to collect feedback compared to collecting feedback during meetings.
- It is important to pilot and test all elements of the initiative. For example, piloting the FIMR evaluation survey provided valuable feedback from FIMR coordinators. In addition, a pilot period was also used to develop the FIMR/MMMS aligned methodology. This allowed testing of the process and methodology that was only conceptualized before fully implementing. Lastly, piloting the FIMR evaluation survey was helpful to gather valuable feedback from FIMR staff (case abstractor, interviewer, director, etc.).
- It is difficult for new FIMR Coordinators to complete the FIMR Evaluation survey, especially if they are restarting FIMR and/or did not have historical context of how FIMR operated prior to starting. To address this, the survey was modified to include skip logic, to improve respondent ease of completing the survey.
- The reporting frequency should be reduced from quarterly to annually. Originally, the MMMS/FIMR aligned recommendations were going to be analyzed quarterly, however that was cumbersome on staff and did not improve findings.

NEXT STEPS

- Develop reports based on findings from the FIMR Case Review Team Recommendation
- Expand strategic storytelling into the FIMR process by developing a toolkit to increase this work.



- Support the Michigan FIMR Strategic Storytelling team that meets monthly to discuss storytelling and the FIMR process.
- Continue gathering feedback from FIMR network members related to the FIMR logic models and the FIMR evaluation survey.
- continue to evaluate the MMMS/Aligned work methodology and better ways to share aligned recommendations and themes to stakeholders statewide.

RESOURCES PROVIDED

- www.michigan.gov/FIMR
- www.ncfrp.org

APPENDIX

- Michigan FIMR Logic Models
- Michigan FIMR Evaluation Survey Questions
- Aligned MMMS/FIMR Recommendation Tool

